

# (12) UK Patent Application GB (11) 2 242 720 (13) A

(43) Date of A publication 09.10.1991

(21) Application No 9006818.0

(22) Date of filing 27.03.1990

(71) Applicant  
Business Lines (1986) Limited

(Incorporated in the United Kingdom)

c/o Tank Clean Limited, Harcourt Street, Walkden,  
Manchester, M28 5GN, United Kingdom

(72) Inventors  
Michael Marczynski  
Peter Brawley

(74) Agent and/or Address for Service  
Urquhart-Dykes & Lord  
Victoria Suite, 3rd Floor,  
Northern Assurance Buildings, Albert Square,  
Manchester, M2 4DN, United Kingdom

(51) INT CL<sup>8</sup>  
F16B 31/02

(52) UK CL (Edition K)  
F2H HTE H13A H13F3  
U1S S1844

(56) Documents cited  
GB 2094035 A      GB 1508192 A      GB 1040839 A  
GB 0928379 A      GB 0914194 A

(58) Field of search  
UK CL (Edition K) F2H HTD HTE, G1J, G1W  
INT CL<sup>8</sup> F16B 31/00 31/02 31/04  
Online databases: WPI

## (54) Looseness indicator for fasteners

(57) A safety indicating device (24) to indicate whether or not a vehicle wheel nut (22) has become loose on its stud (20), comprises a body (26) and a pointer (28). The body (26) has grooves (30) enabling the device (24) to be releasably secured to a nut (22) so that the pointer (28) points towards a reference mark (32).

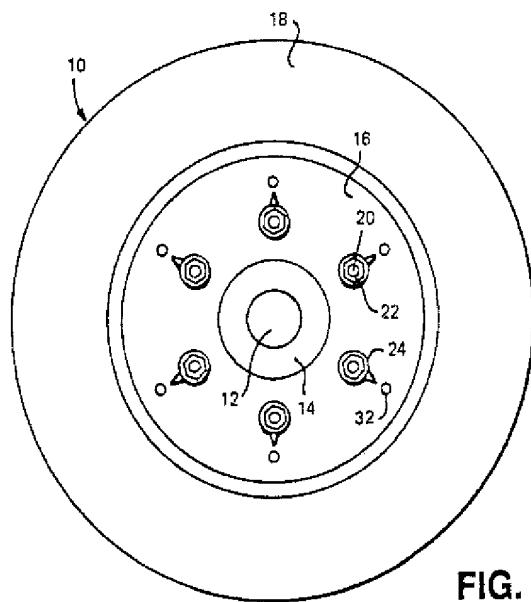


FIG. 1

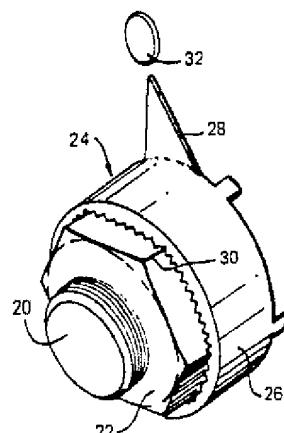
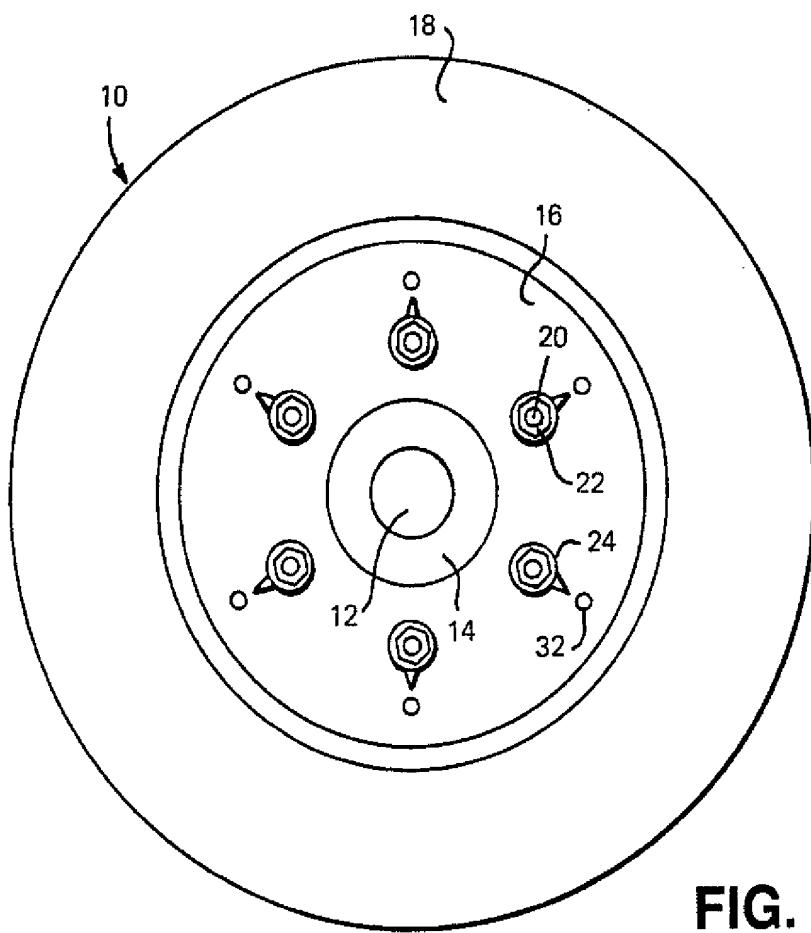
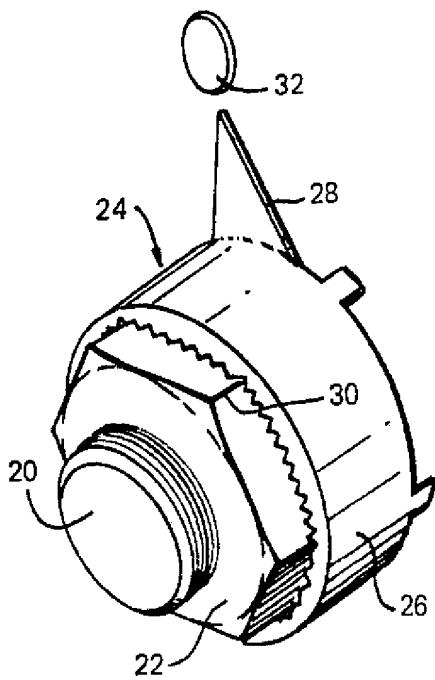
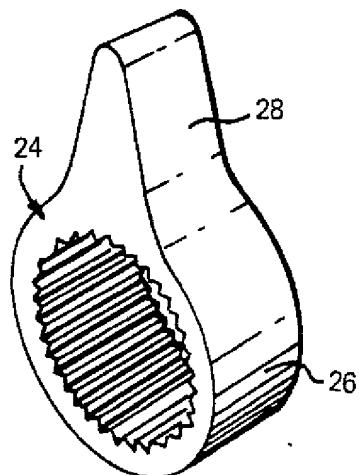


FIG. 2

GB 2 242 720 A

**FIG. 1****FIG. 2****FIG. 3**

## A SAFETY INDICATING DEVICE

The present invention relates to a safety indicating device. The invention is particularly directed towards a safety indicating device for use with vehicle wheels.

A common method of attaching a vehicle wheel to a rotating hub is to provide a number of fixed threaded studs on the rotatable hub and to attach the wheel to the hub by means of nuts engaging the studs, the studs passing through appropriately spaced openings in the wheel.

It is not uncommon for one or more of the wheel nuts to work loose whilst the vehicle is in use so that the wheel can move relative to the hub creating a dangerous and unsafe driving condition.

Whilst a visual inspection on a regular basis is recommended by the vehicle manufacturer, visual inspection does not always readily reveal that one or more of the nuts is working loose particularly if the nut has only moved by a small amount relative to the stud.

The present invention seeks to provide a relatively simple means enabling visual inspection to be carried out so as to indicate whether or not a wheel nut has become loose or is starting to become loose.